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 28aug98 15:12:54 User208669 Session D1255.1
 \$0.14 0.042 DialUnits File1
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File 50:CAB Abstracts 1972-1998/Jul
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Set Items Description

? s birma?

S1 1745 BIRNA?

? s ibdv or ipnv

439 IBDV

210 IPNV

S2 646 IBDV OR IPNV

? s infectious(w)bursal or gumboro or pancreatic(w)necrosis

19869 INFECTIOUS

2447 BURSAL

1726 INFECTIOUS(W)BURSAL

389 GUMBORO

7734 PANCREATIC

16428 NECROSIS

679 PANCREATIC(W)NECROSIS

S3 2535 INFECTIOUS(W)BURSAL OR GUMBORO OR
PANCREATIC(W)NECROSIS

? s s1 or s2 or s3

1745 S1

646 S2

2535 S3

S4 2608 S1 OR S2 OR S3

S5 97 VPS

? s s4 and s5

2608 S4

97 S5

S6 5 S4 AND S5

? t s67/1-5

6/7/ DIALOG(R)File 50:CAB Abstracts

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03420755 CAB Accession Number: 972212226

VPS of infectious bursal disease virus is not essential for viral

replication in cell culture.

Mundt, E.; Kollner, B.; Kretzschmar, D.

Institute of Molecular and Cellular Virology, Friedrich Loeffler Institutes, Federal Research Center for Virus Diseases of Animals, D-17498 Insel Riems, Germany.

Journal of Virology vol. 71 (7): p.5647-5651

Publication Year: 1997

ISSN: 0022-538X

Language: English

Document Type: Journal article

Infectious bursal disease virus (IBDV) encodes in its bisegmented double-stranded RNA genome 4 structural virion proteins, VP1, VP2, VP3, and VP4, as well as a nonstructural protein, VP5. A VP5- IBDV mutant constructed by site-directed mutagenesis of the methionine start codon of VP5, followed by cRNA transfection, was replication competent in cell culture, which indicates that VP5 is not required for productive replication of IBDV. Absence of VP5 expression was verified by lack of reactivity with newly established anti-VP5 monoclonal antibodies and polyclonal sera. VP5- IBDV showed a delay in replication in chicken embryo cells compared to the VP5+ parental virus. However, final yields were similar. These results show that VP5 is nonessential for IBDV replication, which makes it a prime candidate for the construction of deleted, marked vaccines. 15 ref.

6/7/2

DIALOG(R)File 50:CAB Abstracts

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03321557 CAB Accession Number: 972200747

Synthetic transcripts of double-stranded bimavirus genome are infectious.

Mundt, E.; Vakharia, V. N.

Federal Research Center for Virus Disease of Animals, Friedrich-Loeffler-Institutes, Institute of Molecular and Cellular Virology, D-17498 Insel Riems, Germany.

Proceedings of the National Academy of Sciences of the United States of America vol. 93 (20): p.11131-11136

Publication Year: 1996

ISSN: 0027-8424

Language: English

Document Type: Journal article

Independent full-length cDNA clones were constructed that contained the entire coding and non-coding regions of RNA segments A and B of 2 distinguishable infectious bursal disease virus (IBDV) strains of serotype 1. Segment A encodes all of the structural (VP2, VP4 and VP3) and non-structural (VP5) proteins, whereas segment B encodes the RNA-dependent RNA polymerase (VP1). Synthetic RNAs of both segments were produced by in vitro transcription of linearized plasmids with T7 RNA polymerase.

Transfection of Vero cells with combined plus-sense transcripts of both segments generated infectious virus as early as 36 h after transfection. The infectivity and specificity of the recovered chimeric virus was ascertained by the appearance of cytopathic effect in chicken embryo cells, by immunofluorescence staining of infected Vero cells with rabbit anti-IBDV serum, and by nucleotide sequence analysis of the recovered virus, respectively. In addition, transfected viruses containing genetically tagged sequences in either segment A or segment B of IBDV were generated to confirm the feasibility of this system. It is suggested that the development of a reverse genetics system for double-stranded RNA viruses will greatly facilitate studies of the regulation of viral gene expression, pathogenesis and design of a new generation of live vaccines.

23 ref.

Language: English
 Document Type: Journal article
 The genome of infectious pancreatic necrosis virus (IPNV) is composed of 2 segments of dsRNA. The larger segment contains a small ORF partly overlapping the 5' end of the polyprotein reading frame. Yet very little is known about this possible new gene, which presumably codes for a 17 kDa polypeptide (VP5). The region of the viral genome which encompasses the small ORF was reverse-transcribed and amplified by PCR before cloning and sequencing. Analysis of the sequences obtained from 5 different virus strains showed that the small ORF is not found on one of them, and that it is truncated on 2 others. The deduced amino acid sequences did not appear to be well conserved. Despite the large variations between IPNV strains at the genomic level, all predicted VP5 are arginine-rich basic polypeptides. To verify whether the small ORF is translated into protein in fish cells, the 17 kDa polypeptide of the VR-299 strain was expressed as a fusion protein in a prokaryotic expression vector and used to produce a specific antiserum which reacted with concentrated virus in an immunodot assay, indicating that VP5 is synthesized in infected cells, but probably only in small quantities. When tested with 12 other IPNV strains, results were less conclusive than those obtained with strain VR-299. Nevertheless, 3 of the 12 viruses gave a clearly negative signal in the immunodot assay, suggesting that possibly more than one viral strain lacks the small ORF.
 27 ref.

6/7/3 DIALOG(R)File 50:CAB Abstracts

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 03208270 CAB Accession Number: 962205837

Identification of a novel IBDV-specific protein VP5.

Mundt, E.; Beyer, J.

Immunobiology of viral infections. Proceedings 3rd Congress of the European Society for Veterinary Virology Interlaken, Switzerland, 4-7 September, 1994.

Conference Title: Immunobiology of viral infections. Proceedings 3rd Congress of the European Society for Veterinary Virology Interlaken, Switzerland, 4-7 September, 1994.

P.507-512

Publication Year: 1995

Editors: Schwizer, M.; Ackermann, M. (Editors)

Publisher: Foundation Marcel Merieux Lyon, France

ISBN: 2-84039-042-6

Language: English

Document Type: Conference paper

19 ref.

6/7/5 DIALOG(R)File 50:CAB Abstracts

(c) 1998 CAB International. All rts. reserv.
 02975487 CAB Accession Number: 952202719

Identification of a novel viral protein in infectious bursal disease virus-infected cells.
 Mundt, E.; Beyer, J.; Muller, H.
 Federal Research Centre for Virus Diseases of Animals, D-17498 Insel Riehn, Germany.

Journal of General Virology vol. 76 (2): p.437-443
 Publication Year: 1995
 ISSN: 0022-1317

6/7/4 DIALOG(R)File 50:CAB Abstracts

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03097014 CAB Accession Number: 952214676
 Characterization of the small open reading frame on genome segment A of infectious pancreatic necrosis virus.
 Heppell, J.; Tarrab, E.; Berthiaume, L.; Lecomte, J.; Arella, M.
 Institut Armand-Frappier, Centre de Recherche en Virologie, 531 Boulevard des Prairies, Laval Quebec H7N 4Z3, Canada.
 Journal of General Virology vol. 76 (8): p.2091-2096
 Publication Year: 1995
 ISSN: 0022-1317

the 16.5 kDa calculated from the deduced amino acid sequence. Immunofluorescence assays detected the ORF A-2 protein in bursa samples from IBDV-infected chickens. It is concluded that the IBDV ORF A-2 product represents the fifth IBDV protein described and it is proposed that it should be designated IBDV VP5. 30 ref.

? log hold

28aug98 15:18:30 User208669 Session D1255.2

\$2.75 1.000 DialUnits File50

\$0.00 5 Type(s) in Format 6

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\$9.75 Estimated cost File50

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\$9.75 Estimated cost this search

\$9.89 Estimated total session cost 1.042 DialUnits

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